

REMARKS

This paper is submitted in response to the Office Action mailed December 22, 2003.

Claims 1-27 are pending. Claim 27 has been added. Support for the new claim can be found throughout the specification and claims as originally filed and there is no new matter added as a consequence of the new claim.

The Rejections under 35 U.S.C. § 102(e) Should Be Withdrawn

Claims 1-26 are rejected under 35 U.S.C. § 102(e), as allegedly anticipated by Zimmer et al. (US 6,090,880; "Zimmer"). The Examiner alleges that Zimmer teaches a rubber composition comprising a diene-based elastomer, reinforcing filler and coupling agent. The Examiner acknowledges that Zimmer does not disclose all the characteristics and properties of the rubber compositions of the present claims, but alleges that he has reasonable basis to believe that the claimed properties are inherent in the compositions disclosed in Zimmer. The Examiner further states that the burden of proof is shifted to the Applicants to prove that the properties are not inherent, when the PTO has no means to conduct analytical experiments.

Applicants respectfully traverse this rejection. For a claim to be anticipated by a reference, "there must be no difference between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill in the field of the invention." *Scripps Clinic & Research Foundation v. Genentech, Inc.*, 927 F.2d 1565 18 U.S.P.Q.2d 1001 (Fed. Cir. 1991). Moreover, a claim is anticipated and fails to meet the requirement of §102 only when a single prior art reference discloses each and every element of the claimed invention. *Lewmar Marine, Inc. v. Bariant*, 3 U.S.P.Q.2d 1766 (Fed. Cir. 1987), emphasis added.

The present invention discloses a rubber composition comprising a diene elastomer, a

reinforcing white filler and a coupling agent, where the white filler comprises a titanium oxide.

Claim 1 also recites specific characteristics of the titanium oxide.

In contrast, Zimmer claims a rubber composition comprising a diene-based elastomer, a reinforcing filler, and a silica coupling agent, where the reinforcing filler is composed of a modified carbon black and at least one of (1) a precipitated silica containing silanol groups and (2) an unmodified reinforcing carbon black. The modified carbon black may, among numerous other possible moieties, contain a titanium *dioxide* moiety on its surface. However, Zimmer does not disclose a reinforcing white filler, where the white filler comprises a titanium oxide. The titanium oxide is not presented alone in Zimmer as the reinforcing white filler, only as a component of the modified carbon black.

In actuality, Zimmer is directed primarily to a rubber composition comprising surface-modified carbon blacks with silanol moieties (col. 6, lines 4-13). Zimmer only discloses silane-modified carbon blacks in their examples (col. 10, lines 2-3; col. 13, line 51). Zimmer does not provide examples of carbon black that have been surface-modified with titanium oxide.

The inventors have identified titanium oxide as a suitable reinforcing filler capable of replacing carbon blacks. Titanium oxides have been used conventionally as a white pigment in different materials, such as paints, inks, cosmetics, plastics materials and polymers. They have been used in rubber compositions for tire sidewalls (specification, page 3, lines 9-13). Titanium oxides may also be used as an anti-aging additive. The titanium oxide in the presently claimed composition unexpectedly presents an advantageous alternative to the use of reinforcing silicas or aluminas in colored rubber compositions, where a single white filler can be used to replace several different types of fillers.

The present application clearly defines that a reinforcing white filler is an inorganic filler, such as a mineral filler (specification page 18, lines 6-11). A white filler is obviously not and cannot be a black filler, such as carbon black. Furthermore, the specification (page 3, line 21 to page 4, line 6) indicates that the white filler can be used to replace carbon black, confirming that white fillers and carbon blacks are entirely different materials.

Although Zimmer does propose the use of a white filler, i.e. a precipitated silica containing silanol groups, it fails to present titanium oxide as a true reinforcing white filler. Furthermore, Zimmer does not disclose any other candidates that may function to serve as a reinforcing white filler, which can replace carbon black in a rubber composition.

For the foregoing reasons, Applicants submit that Zimmer cannot and does not anticipate claims 1-26 and request the withdrawal of the rejection of the claims.

The Examiner has also stated that it would have been obvious for one of skill in the art to arrive at the claimed rubber composition, because the claimed compositions are allegedly within the generic disclosure of Zimmer and one of ordinary skill in the art would have expected all embodiments of Zimmer to have similar properties.

In response, Applicants notes that the Examiner has not imposed an obviousness rejection. However, establishment of a *prima facie* case of obviousness requires that the prior art teach or suggest all the claim limitations. As indicated above, Zimmer fails to disclose a rubber composition having titanium oxide as white reinforcing filler. At best, Zimmer teaches that a carbon black filler may be surface-modified with titanium oxide. Zimmer teaches that a carbon black filler is required and does not teach the use of only a white filler. Therefore, Applicants believe that Zimmer does not render the present invention obvious.

New Claim 27

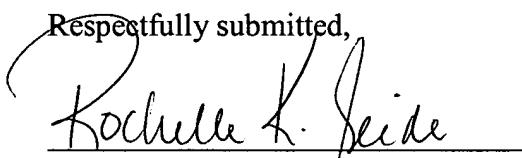
Applicants have added dependent claim 27, directed to a rubber composition optionally comprising carbon black in an amount less than the quantity of reinforcing white filler. Support for the addition of the claim is found at pages 22, lines 11-13. Applicants further submit that Zimmer does not anticipate the subject matter of claim 27 for the reasons cited above.

CONCLUSION

In view of the foregoing remarks, Applicants respectfully request allowance of the pending claims.

Applicants request a two month extension of time and enclose herewith the requisite fee as set forth in 37 C.F.R. § 1.17(a)(2). Applicants do not believe that any additional fee is required in connection with the submission of this document. However, should any fee be required, or if any overpayment has been made, the Commissioner is hereby authorized to charge any fees, or credit or any overpayments made, to Deposit Account 02-4377. A duplicate copy of this sheet is enclosed.

Respectfully submitted,



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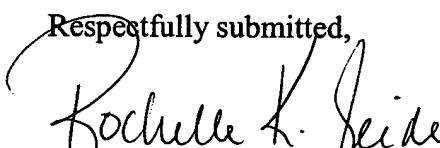
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